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Patent Claims

1. Use of at least one of the substrates selected from the group consisting of FDP, DDAO, DiFMUP, ELF[®]39 phosphate and ELF[®]97 phosphate for the detection, characterization and qualitative and/or quantitative determination of the activity of a phosphoamidase.
2. The use of claim 1 wherein the phosphoamidase is a protein phosphoamidase.
- 15 3. The use of claim 2 wherein the protein phosphoamidase is a protein histidine phosphoamidase.
4. The use of claim 3 wherein the protein histidine phosphoamidase is PHP1.
- 20 5. A method for the identification of an inhibitor or activator of a phosphoamidase comprising the steps:
 - a) establishing a sample comprising a phosphoamidase and a test substance,
 - b) administering a substrate selected from the group consisting of FDP, DDAO, DiFMUP, ELF[®]39 phosphate and ELF[®]97 phosphate to the sample,
 - c) detecting the signal produced by the substrate, and
 - d) identifying the test substance as an activator or inhibitor of the phosphoamidase by comparing the signal produced in the sample comprising the test substance with the signal produced in a control sample comprising no test substance.
- 30 6. A method for the identification of the activity of a phosphoamidase in a electrophoresis gel or on a blot membrane comprising the steps:
 - a) separating a sample comprising a phosphoamidase in a gel

- 5 b) if necessary, renaturation of the phosphoamidase
- c) incubating the gel or the blot membrane resulting from blotting the gel with
 ELF®39 phosphate and/or ELF®97 phosphate as substrate, and
- d) detecting the signal produced by the substrate
- 10 7. A method for the determination of the specificity of an inhibitor or activator for a
 certain phosphoamidase or phosphatase comprising the steps:
 - a) separating a sample comprising several phosphoamidases and/or
 phosphatases in a gel
 - b) if necessary, renaturation of the phosphoamidase
 - c) incubating the gel or the blot membrane resulting from blotting the gel with
 the inhibitor or activator and subsequently with ELF®39 phosphate and/or
 ELF®97 phosphate as substrate, and
 - d) determining the specificity of the inhibitor or activator by comparing the
 signal produced in the gel or blot membrane incubated with the inhibitor or
 activator with the signal produced in a control gel or blot membrane not
 incubated with the inhibitor or activator.
- 15 8. A method according to any of the claims 5 to 7 wherein the phosphoamidase
 is a protein phosphoamidase.
- 20 25 9. A method according to claim 8 wherein the protein phosphoamidase is a
 protein histidine phosphoamidase.
- 30 10. A method according to claim 9 wherein the protein histidine phosphoamidase
 is PHP1.